

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 12, 14 and 17-56 are pending in the application. Claims 50-56 are added; Claims 1-11 are canceled; and Claims 12, 44, 45 and 49 are amended by the present amendment. Support for amended Claims 12, 45 and 49 can be found in the original specification, claims and drawings.¹ New Claims 50-56 correspond to Claims 19-22, 24-25 and 28, respectively, and are written in independent form including all the limitations of base Claim 12. No new matter is presented.

The undersigned appreciatively acknowledge the courtesy extended by Primary Examiner Pham by granting a personal interview on August 22, 2005. During the interview, the claims were discussed in light of the applied references and proposed claim language was presented that Examiner Pham indicated would overcome the applied references. Accordingly, the proposed claim amendments discussed during the interview are incorporated into amended independent Claims 12, 45 and 49.

In the outstanding Office Action, Claims 44 and 45 were objected to because of informalities; Claims 12, 14, 18, 23, 26-27, 29-34, 39-40, 43, and 45-49 were rejected under 35 U.S.C. § 103(a) as unpatentable over Toda (U.S. Publication No. 2001/0017645) in view of Ono (Japanese Publication No. 2001194613)²; Claims 41, 42, and 44 were rejected under 35 U.S.C. §103(a) as unpatentable over Toda in view of Ono in further view of Yokoyama (U.S. Publication No. 2004/0041992); Claims 35-38 were rejected under 35 U.S.C. § 103(a) as unpatentable over Toda in view of Ono in further view of Azumai et al. (U.S. Patent No. 6,320,682, hereinafter "Azumai"); Claim 17 was rejected under 35 U.S.C. § 103(a) as

¹ See, e.g., Specification at Fig. 16, and p. 63, lines 2-13.

² See Interview Summary of August 22, 2005, noting the typographical error and confirming that the 103 rejection to Claims 12, 14, 18, 23, 26-27, 29-34, 39-40, 43, and 45-49 is over Toda in view of Ono.

unpatentable over Toda in view of Ono in further view of Kanehashi (Japanese Publication No. 11-231240); and Claims 19-22, 24, 25, and 28 were objected to as dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Applicants acknowledge with appreciation the indication of allowable subject matter in Claims 19-22, 24, 25, and 28. In response, new Claims 50-56 are added which correspond to allowable Claims 19-22, 24, 25 and 28 written in independent form including all the limitations of base Claim 12 and any intervening claims.

Accordingly, Applicants respectfully submit that new Claims 50-56 patentably define over the applied references.

In response to the objections to Claims 44 and 45 because of informalities, these claims are amended to incorporate the recommendations set forth in the outstanding Official Action. Specifically, Claim 44 is amended to depend from “Claim 42” instead of “Claim 41” and the preamble of Claim 45 is amended to recite “and” instead of “or”.

Accordingly, Applicants respectfully request that the objections to Claims 44 and 45 be withdrawn.

Independent Claims 12, 45 and 49 were rejected under 35 U.S.C. § 103(a) as unpatentable over Toda in view of Ono. As discussed in the personal interview, Applicants respectfully submit that amended independent Claims 12, 45 and 49 state novel features clearly not taught or rendered obvious by the applied references.

As discussed during the interview, independent Claims 12, 45 and 49 are amended to recite “scanning line inclination correcting means for entirely tilting the optical element ***around a supporting point positioned at a center of the optical element along the scanning line***” instead of the “scanning line inclination correcting means for entirely tilting the optical element”.

In an exemplary non-limiting embodiment, as depicted in Fig. 16, a rolling member (1093) serves as a support point for an inclination correction mechanism that corrects the inclination of a scanning line corresponding to an optical element. The contact point of the rolling member (1093) and the holding member (1061) is positioned at the center of the second scanning lens (1030) in the direction "A" (along the scanning line). As a result, the leaf spring (1095) rotates the second scanning lens (1030) and the scanning line curve correcting mechanism (1071) in the counterclockwise direction, and the inclination of the second scanning lens (1030) is rotated around the rolling member (1093).

Turning to the primary reference, Figs. 6 of Toda depicts an adjusting screw (90) used to correct the inclination of a cylindrical mirror (48). The structural support point for this rotation is the pillar near the projecting part (72A) at an end of the cylindrical mirror (48), not at the center thereof, in contrast to the claims. Since the support point is not near the optical axis (i.e. distant from the center of the optical element), increasing the inclination also causes an increase in the deviation of the optical axis height, thereby degrading optical performance.

This deficiency in Toda is graphically depicted in Fig. 8A. Specifically, Toda describes that the scanning line inclination can be corrected by rotating the adjusting screw; however, the quality of the scanning line curve is worsened because the center of the optical element (cylindrical mirror 48) is also moved in the sub-scanning direction. Further, Figs. 6 and 8B of Toda describe a screw (92) used to adjust the scanning locus of the cylindrical mirror (48) on the scanning drum. However, this adjustment of the scanning locus does not effect the inclination of the cylindrical mirror, and the support for this adjustment is located near projecting parts (74A and 72A), which are not located near the center of the optical element, as recited in amended Claim 12.

Therefore, Toda describes that the support point is not near the optical axis, but is instead located near the projection (72A), thus causing the performance degradation

discussed above. Accordingly, Toda fails to teach or suggest a scanning line inclination correcting means for entirely tilting the optical element ***around a supporting point positioned at a center of the optical element along the scanning line***, as recited in amended Claim 12.

The outstanding Official Action admits that Toda fails to teach the holding member and the claimed features thereof, as recited in amended Claim 12. To cure this deficiency in Toda the Official Action relies on Ono. However, as discussed above with respect to Toda, Ono also fails to teach or suggest a scanning line inclination correcting means for entirely tilting the optical element ***around a supporting point positioned at a center of the optical element along the scanning line***, as recited in amended Claim 12.

Accordingly, Applicant respectfully requests the rejection of Claim 12 under 35 U.S.C. § 103 be withdrawn. For substantially the same reasons given with respect to amended Claim 12, it is also submitted that amended independent Claims 45 and 49 patentably define over Toda and/or Ono.

As discussed above, neither Toda nor Ono, neither alone nor in combination, teach or suggest a scanning line inclination correcting means for entirely tilting the optical element ***around a supporting point positioned at a center of the optical element along the scanning line***. Likewise, none of Yokoyama, Azumai, nor Kanehashi remedy this deficiency, and therefore, none of the cited references, neither alone nor in combination, teach or suggest Applicant's Claims 17, 35-38, 41-42 and 44 which include the above-distinguished limitations by virtue of dependency. Therefore, the Official Action fails to provide a *prima facie* case of obviousness with regard to any of these claims.

Accordingly, Applicant respectfully requests the rejection of Claims 17, 35-38, 41-42 and 44 under 35 U.S.C. § 103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 12, 14 and 17-56 is definite and patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)

Surinder Sachar
Registration No. 34,423